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10/801,641	03/17/2004	Antti K. Laurila	60282.00163	1701
32294 7590 07/12/2007 SQUIRE, SANDERS & DEMPSEY L.L.P. 14TH FLOOR 8000 TOWERS CRESCENT TYSONS CORNER, VA 22182			EXAMINER WU, JIANYE	
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/801,641	<b>Applicant(s)</b> LAURILA ET AL.	
	<b>Examiner</b> Jianye Wu	<b>Art Unit</b> 2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-49 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-49 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 3/17/2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) ✓            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)     | Paper No(s)/Mail Date. ____                                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) ✓ | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>11/1/05</u>   | 6) <input type="checkbox"/> Other: ____                           |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. **Claims 12, 17** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

3. Regarding **claim 12**, lines 1-2, "an Administration Function (ADMF)" appears should have been --the--since ADMF is mentioned in claim 4 already, and there is only one ADMF.

Regarding **claim 17**, line 2, "an Administration Function (ADMF)" appears should have been --the--since ADMF is mentioned in claim 15 already, and there is only one ADMF.

### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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5. **Claims 1-6, 8-10, 12, 14-17, 19-27, 29-30, 32-44 and 47-48** are rejected under 35 U.S.C. 102(e) as being anticipated by Maki et al (US 2004/0228362 A1, hereinafter **Maki**).

For **claim 1**, Maki discloses a method for intercepting at least one session involving at least a first network (network 1, line 3 of [0016]) and a second network (network 2, line 5 of [0016]) of different types, the method comprising:

monitoring signaling information (SIP signaling, line 4 of [0006]), provided in at least one of the first and second networks, of the at least one session (SIP, line 1 of [0006]), and session content (packet belong to the same stream, lines 8-9 of [0006]) related to the same at least one session provided in another of the first and second networks;

wherein an indication to start interception is delivered between the first and second networks (Fig. 1 or Fig. 6).

As to **claim 2**, Maki discloses the method according to claim 1 wherein the step of monitoring signalling information comprises monitoring signalling information provided in an IP Multimedia Subsystem (IMS) network (IMS, line 4-5 of [0004]).

As to **claim 3**, Maki discloses the method according to claim 1, wherein the step of monitoring session content comprises monitoring session content provided in a General Packet Radio Service (GPRS) network (line 2 of [0005]).

As to **claim 4**, Maki discloses the method according to claim 1, wherein one of a network element and a function of the first network (GGSN of fig. 6) sends Lawful Interception (line 2-7 of [0016]) by information either directly to one of a support node of

the second network, an Administration Function (ADMF, Fig. 6), and a Delivery Function (DF3 of Fig. 6).

As to **claim 5**, Maki discloses the method according to claim 4, wherein said one of the network element and the function of the first network is a Control State Control Function (P-CSCF of Fig. 6).

As to **claim 6**, Maki discloses the method according to claim 4, wherein the ADMF (ADMF of Fig. 6) is included in the signaling path and commands a support node of the second network to start the interception.

As to **claim 8**, Maki discloses the method according to claim 4, wherein the LI information is sent during media authorization (lines 1-2 of [0020]).

As to **claim 9**, Maki discloses the according to claim 4, wherein the LI information is sent to a Gateway General Packet Radio Service Support Node (GGSN, Fig. 6) from a Proxy-Call State Control Function (P-CSCF, Fig. 6).

As to **claim 10**, Maki discloses the method according to claim 9, wherein, when the GGSN receives the LI information, it starts the interception of the content of communication related to the IP Multimedia Subsystem (IMS) session, and delivers the information to a Serving GPRS Support Node (SGSN, Fig. 6) by attaching the LI information received from the P-CSCF to a Create PDP Context Response message (lines 12 of [0059]; or M10 in Fig. 4), which the SGSN in turn starts the interception of content of communication related to the IMS session (M17 and M18 of Fig. 4).

As to **claim 12**, Maki discloses the method according to claim 4, wherein the ADMF performs actual interception activation in a Control State Control Function (P-

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CSCF of Fig. 6) and a General Packet Radio Service Support Node (SGGN or GGSN of Fig. 6) and sends the same LI information to these networks elements, wherein information on a need of interception is stored in the GSN, wherein one of the CSCF and a Policy Decision Function (PDF, lines 3-4 of [0054])) of the CSCF includes only an indication of the interception need in the authorization decision (M10 or M11 of Fig. 4).

As to **claim 14**, Maki discloses the method according to claim 1, wherein the interception by the second network is activated by the first network based on mapping of an IP Multimedia Subsystem (IMS, line 4 of [0004])) identity to a General Packet Radio Service Support Node (GPRS) identity (lines 1-2 of [0005]).

As to **claim 15**, Maki discloses the method according to claim 1, wherein a Mapping Function is provided which translates target indications of the first network to corresponding target indications of the second network associated with a same monitored user (Fig. 6; or lines 1-6 of [0008]).

As to **claim 16**, Maki discloses the method according to claim 15, wherein the Mapping Function is provided in the ADMF (ADMF of Fig. 6) which receives Lawful Interception information (lines 4-6 of [0007]) related to a session in the second network when the session is started (lines 4-6 of [0019]).

As to **claim 17**, Maki discloses the method according to claim 15, wherein the Mapping Function is provided in the ADMF, which receives session identifiers of the first network when the session in the first network is started (lines 4-6 of [0019]).

As to **claim 19**, Maki discloses the method according to claim 1, wherein the interception in the first network is activated based on an examination of content of communication (CC) of the second network (Filter, Fig. 6).

As to **claim 20**, Maki discloses the method according to claim 19, wherein an entity (DF3 or GGSN of Fig. 6) checks (checks, line 3 of [0069]) a message received from a support node (The intercepting node, line 2 of [0069]) of the second network for detecting Lawful Interception (LI) information, and forwards such information, if found, to a Mapping Function, the Mapping Function resolving the LI information to a user identity of the first network (lines 5-8 of [0069]), wherein one of a network element and a function of the first network is commanded to start interception using the resolved user identity (Fig. 4).

As to **claim 21**, Maki discloses the method according to claim 20, wherein the Mapping Function is a Mapping Function of one of another network element and a function, the one of the another network element and the function commanding the one of the network element and the function of the first network to start interception using the resolved user identity (lines 1-3 of [0070]).

As to **claim 22**, Maki discloses the method according to claim 20, wherein the Mapping Function is located in a Delivery Function 3 (DF 3 of Fig. 6).

As to **claim 23**, Maki discloses the method according to claim 20, wherein the entity is a Delivery Function (DF3 of Fig. 6).

As to **claim 24**, Maki discloses the method according to claim 20, wherein the entity is a Support Node of the second network (GGSN of Fig. 6).

As to **claim 25**, Maki discloses the method according to claim 1, wherein the interception in the first network is activated based on a mapping of an identity of a user used in the second network to an identity of the same user in the first network

As to **claim 26**, Maki discloses the method according to claim 25, wherein a media authorization is performed between the first and second networks, a User Equipment (UE, Fig. 4) sends an Authorization Token to the second network which Authorization Token represents a session being created in the first network, the Authorization Token being reported to a Mapping Function (part of ADMF of Fig. 4) in a Lawful Interception (LI) information message which includes a user identity used in the second network, the Mapping Function activating interception in the first network (Fig. 4).

As to **claim 27**, Maki discloses the method according to claim 26, wherein the Mapping Function is a Mapping function of an Administration Function (ADMF of Fig. 4).

As to **claim 29**, Maki discloses the method according to claim 25, wherein an Administration Function (ADMF, Fig. 4) receives Lawful Interception (LI) information containing a session identifier used in the first network (M12 of Fig. 4) from a network element of the second network, the ADMF uses the session identifier directly for interception activation in the first network (M15 of Fig. 4).

As to **claim 30**, Maki discloses the method according to claim 1, wherein the interception in the first network is activated based on upload of Lawful Interception (LI) information from a network element of the second network (Fig. 4, such as M14).



As to **claim 32**, Maki discloses the method according to claim 1, wherein information of matching triggers of the first network is forwarded to the second network by using identities known in the second network (lines 7-9 in [0009]; or Fig. 4).

As to **claim 33**, Maki discloses the method according to claim 32, wherein the used identities are one of an International Mobile Subscriber Identity (IMSI, line 2 of [0008]) and a combination of a General Packet Radio Service (GPRS, line 2 of [0005]) Charging ID and a Gateway General Packet Radio Service Support Node (GGSN, Fig. 6) identification (lines 3-10 of [0009]).

As to **claim 34**, Maki discloses the method according to claim 1, wherein the decision of interception is done for every session created in the first network (lines 7-9 in [0009]).

As to **claim 35**, Maki discloses the method according to claim 1, wherein the decision of interception issued for a session created in the first network is maintained in the first network after a termination of the session for use for at least one following session (lines 8-9 of [0005]).

As to **claim 36**, Maki discloses the method according to claim 1, wherein monitoring in the first network is activated by sending information to the first network when the interception is originally activated using target identifiers of the second network (DF3 of Fig. 6).

As to **claim 37**, Maki discloses the method according to claim 36, wherein the target identifiers are one of an International Mobile Subscriber Identity (IMSI, line 2 of

[0008]), a Mobile Subscriber ISDN Number (MSISDN, line 3 of [0008]), and an International Mobile Equipment Identity (IMEI, line 4 of [0008]).

For **claim 38**, it is the corresponding system claim of claim 1, therefore, is rejected for the same reason explained in claim 1 above.

As to **claim 39**, it is the corresponding system claim of claim 2, therefore, is rejected for the same reason explained in claim 2 above.

As to **claim 40**, it is the corresponding system claim of claim 3, therefore, is rejected for the same reason explained in claim 3 above.

As to **claim 41**, it is the corresponding system claim of claim 4, therefore, is rejected for the same reason explained in claim 4 above.

As to **claim 42**, it is the corresponding system claim of claim 5, therefore, is rejected for the same reason explained in claim 5 above.

As to **claim 43**, it is the corresponding system claim of claim 6, therefore, is rejected for the same reason explained in claim 6 above.

As to **claim 44**, it is the corresponding system claim of claim 12, therefore, is rejected for the same reason explained in claim 12 above.

As to **claim 47**, Maki discloses the network element to be used in a system according to claim 38, the network element comprising: means for delivering an indication to start interception between the first and second networks (GGSN of Fig. 4).

As to **claim 48**, Maki discloses the network element according to claim 47, further comprising at least one of a mapping function and a mediation function (DF3 or GGSN of Fig. 6).

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. **Claims 7 and 31** are rejected under 35 U.S.C. 103(a) as being unpatentable over Maki in view of 3GPP TS 29.207 V5.5.1 (2003-10) (hereinafter **3GPP29.207**) and 3GPP TS 33.107 V6.0.0 (2003-09) (hereinafter **3GPP33.107**).

As to **claim 7**, Maki discloses the method according to claim 4, wherein the LI information is sent from one of a Call State Control Function (CSCF) and a Policy Decision Function (PDF) of a CSCF to a General Packet Radio Service (GPRS) support node.

Maki is silent on Go-interface and an X1\_1-interface.

3GPP29.207 discloses Go-interface (lines 1-6 of Section 4.1, page 9) and 3GPP33.107 discloses X1\_1-interface (Section 5.1.1, Page 12).

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Maki, 3GPP29.207 and 3GPP33.107 teach the same art; 3GPP29.207 and 3GPP33.107 provides more detailed information on the subject.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to modified Maki by adding information from 3GPP29.207 and 3GPP33.107 to provide more detailed and completed description for the benefit of better understanding of the subject.

As to **claim 31**, Maki discloses the method according to claim 30, but **is silent on** wherein the LI information is uploaded over a Go interface.

3GPP29.207 discloses Go-interface (lines 1-6 of Section 4.1, page 9), over which LI information uploaded. Maki and 3GPP29.207 teach the same art; 3GPP33.107 provides more detailed information on the subject.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to modified Maki by adding information from 3GPP29.207 to provide more detailed and completed description for the benefit of better understanding of the subject.

8. **Claims 11, 13, 18, 28, 45-46 and 49** are rejected under 35 U.S.C. 103(a) as being unpatentable over Maki in view of 3GPP TS 29.207 V5.5.1 (2003-10) (hereinafter **3GPP29.207**) and 3GPP TS 33.107 V6.0.0 (2003-09) (hereinafter **3GPP33.107**).

As to **claim 11**, Maki discloses the method according to claim 10, but **is silent on** wherein, in case of an inter-SGSN handover, the LI information is transferred from an old SGSN of a monitored user to a new SGSN.

3GPP33.107 discloses handover (Section 6.3.3.4, Page 23).

Maki and 3GPP33.107 teach the same art; 3GPP33.107 provides more detailed information on the subject.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to modified Maki by adding information from 3GPP33.107 to provide more detailed and completed description for the benefit of better understanding of the subject.

As to **claim 13**, Maki discloses the method according to claim 1, wherein the interception by the second network is activated by the first network wherein Lawful Interception (LI) information is sent from a Control State Control Function (CSCF) then sends the LI information to a General Packet Radio Service Support Node (GSN).

Maki **is silent on** using a Delivery Function 2 (DF2).

3GPP33.107 discloses DF2 (Section 5.1.1, Page 12).

Maki and 3GPP33.107 teach the same art; 3GPP33.107 provides more detailed information on the subject.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to modified Maki by adding information from 3GPP33.107 to provide more detailed and completed description for the benefit of better understanding of the subject.

As to **claim 18**, Maki discloses the method according to claim 15, but **is silent on** wherein the Mapping Function is located in a DF2.

3GPP33.107 discloses Mapping Function is located in a DF2 (Figure 15, Section 6.3 in Page 19).

Maki and 3GPP33.107 teach the same art; 3GPP33.107 provides more detailed information on the subject.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to modified Maki by adding information from 3GPP33.107 to provide more detailed and completed description for the benefit of better understanding of the subject.

As to **claim 28**, Maki discloses the method according to claim 26, but **is silent on** wherein the Mapping Function is located in a DF2.

3GPP33.107 discloses Mapping Function is located in a DF2 (Figure 15, Section 6.3 in Page 19).

Maki and 3GPP33.107 teach the same art; 3GPP33.107 provides more detailed information on the subject.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to modified Maki by adding information from 3GPP33.107 to provide more detailed and completed description for the benefit of better understanding of the subject.

As to **claim 45**, Maki discloses the system according to claim 38, comprising one of an Administration Function (ADMF), but **is silent on** DF2 and DF3.

3GPP33.107 discloses Mapping Function is located in a DF2 (Figure 15, Section 6.3 in Page 19) and DF3 (Figure 12 in Section 6.1 of Page 17).

Maki and 3GPP33.107 teach the same art; 3GPP33.107 provides more detailed information on the subject.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to modified Maki by adding information from 3GPP33.107 to provide more detailed and completed description for the benefit of better understanding of the subject.

As to **claim 46**, Maki discloses the system according to claim 45, wherein the one of the ADMF, but is **silent on** DF2 and DF3.

3GPP33.107 discloses Mapping Function is located in a DF2 (Figure 15, Section 6.3 in Page 19) and DF3 (Figure 12 in Section 6.1 of Page 17).

Maki and 3GPP33.107 teach the same art; 3GPP33.107 provides more detailed information on the subject.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to modified Maki by adding information from 3GPP33.107 to provide more detailed and completed description for the benefit of better understanding of the subject.

As to **claim 49**, Maki discloses the network element according to claim 47, being implemented as one of an Administration Function (ADMF), but is **silent on** DF2 and DF3.

3GPP33.107 discloses Mapping Function is located in a DF2 (Figure 15, Section 6.3 in Page 19) and DF3 (Figure 12 in Section 6.1 of Page 17).

Maki and 3GPP33.107 teach the same art; 3GPP33.107 provides more detailed information on the subject.

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Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to modified Maki by adding information from 3GPP33.107 to provide more detailed and completed description for the benefit of better understanding of the subject.

### **Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jianye Wu whose telephone number is (571)270-1665. The examiner can normally be reached on Monday to Thursday, 8am to 7pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on (571)272-3174. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jianye Wu

6/26/07

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